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Amendments to the Claims

Please amend Claims 1-3, 9-11, 13, 15, 16 and 22-24, and add new Claims 26-35 to read as follows. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below.

1. (Currently amended) A printing apparatus having printing means that executes printing on a print medium transported along a transportation path, the apparatus comprising:

upstream transporting means including a pair of ~~opposite~~ rollers arranged upstream of said printing means in said the transportation path for transporting the print medium by rotating while sandwiching the print medium;

downstream transporting means arranged downstream of said printing means in ~~said the~~ transportation path for transporting the print medium; and

storage means for storing nip position information representative of a position of a nip portion between said pair of rollers within ~~said the~~ transportation path, ~~the nip portion sandwiching an end of the print medium between said rollers wherein the nip position information relates to an interval between a predetermined reference position located upstream of the nip portion in the transportation path and the nip portion.~~

2. (Currently amended) A printing apparatus as claimed in claim 1, wherein ~~said upstream transporting means comprising a transportation roller located upstream of said printing means in said transportation path and driven by predetermined~~

~~driving means and a pinch roller that rotates one of said pair of rollers is a transportation roller driven by driving means and another roller is able to rotate so as to follow rotation of the said transportation roller.~~

3. (Currently amended) A printing apparatus as claimed in claim 1, wherein said downstream transporting means ~~comprising~~ comprises a sheet discharging roller located downstream of said printing means in ~~said~~ the transportation path and driven by predetermined driving means and a spur that is urged toward ~~the~~ the said sheet discharging roller.

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Claims 4-8 (withdrawn)

9. (Currently amended) A printing apparatus as claimed in claim 2, further comprising information obtaining means for automatically obtaining ~~said~~ the nip position information, ~~the~~ the said information obtaining means comprising rotation state detecting means for detecting a state of rotation of ~~the~~ the said transportation roller in a state in which the print medium is sandwiched between ~~the~~ the said transportation roller and ~~the~~ the said pinch roller at the nip portion thereof and in a state in which the print medium has slipped out from ~~said~~ the nip portion, and means for measuring the interval between a predetermined reference position located upstream of ~~said~~ the nip portion in the transportation path and ~~said~~ the nip portion, on the basis of a result of detection by ~~the~~ the said rotation state detecting means.

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10. (Currently amended) A printing apparatus as claimed in claim 9, wherein said rotation state detecting means detect detects a change in the speed of rotation of the said transportation roller.

11. (Currently amended) A printing apparatus as claimed in claim 9, wherein said rotation state detecting means detect detects a change in the quantity of rotations during each intermittent rotating operation of the said transportation roller.

Claim 12 (withdrawn)

13. (Currently amended) A printing apparatus as claimed in claim 9, wherein said rotation state detecting means comprises an optical code wheel that rotates around the same center of rotation as that of said transportation roller, and a sensor that reads a signal from the said optical code wheel.

14. (Original) A printing apparatus as claimed in claim 1, wherein said printing means uses thermal energy to generate bubbles in ink so that energy generated by the bubbles can cause the ink to be ejected.

15. (Currently amended) A printing method for executing printing on a print medium transported along a transportation path by using printing means, said printing method comprising the steps of:

transporting the print medium by upstream transporting means including a pair of opposite rollers arranged upstream of said the printing means in said the transportation path while sandwiching the print medium;

transporting the print medium by downstream transporting means arranged downstream of said the printing means in said the transportation path; and

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storing nip position information representative of the a position of a nip portion between said the pair of rollers within said the transportation path, the nip portion sandwiching an end of the print medium between said rollers wherein the nip position information relates to an interval between a predetermined reference position located upstream of the nip portion in the transportation path and the nip portion.

16. (Currently amended) A printing method as claimed in claim 15, wherein said upstream transporting means comprising a transportation roller located upstream of said printing means in said transportation path and driven by predetermined driving means and a pinch roller that rotates one of the pair of rollers is a transportation roller driven by driving means and another roller is able to rotate so as to follow rotation of the said transportation roller.

Claims 17-21 (withdrawn)

22. (Currently amended) A printing method as claimed in claim 15, comprising an information obtaining step of automatically obtaining said the nip position

information, the information obtaining step comprising a rotation state detecting step of detecting a state of rotation of the transportation roller between a state in which the print medium is sandwiched between the transportation roller and the pinch roller at the nip portion thereof and a state in which the print medium has slipped out from said the nip portion, and a step of measuring the interval between a predetermined reference position located upstream of said the nip portion in the transportation path and said the nip portion, on the basis of a result of detection by the said rotation state detecting step.

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23. (Currently amended) A printing method according to claim 22, wherein said rotation state detecting step detect detects a change in the speed of rotation of the transportation roller.

24. (Currently amended) A printing method according to claim 22, wherein said rotation state detecting step detect detects a change in the quantity of rotations during each intermittent rotating operation of the transportation roller.

Claim 25 (withdrawn)

26. (New) A printing apparatus having printing means that executes printing on a print medium transported along a transportation path, the apparatus comprising:

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upstream transporting means arranged upstream of said printing means in the transportation path for transporting the print medium, said transporting means comprising a transportation roller driven by predetermined driving means and a pinch roller cooperatively sandwiching the print medium between said pinch roller and said transporting roller;

downstream transporting means arranged downstream of said printing means in the transportation path for transporting the print medium; and

storage means for storing information relative to a transported distance after an end of the print medium passes through a predetermined position until it passes through said upstream transportation means.

27. (New) A printing apparatus as claimed in claim 26, further comprising first detecting means arranged upstream of said upstream transporting means to detect the print medium passing through a predetermined position.

28. (New) A printing apparatus as claimed in claim 27, further comprising second detecting means for detecting the print medium passing through a nip portion between said transporting means and said pinch roller.

29. (New) A printing apparatus as claimed in claim 28, wherein said second detecting means detects a temporary increase of rotation speed of said transportation roller.

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30. (New) A printing apparatus as claimed in claim 28, wherein said second detecting means detects an increase in a rate of the number of rotations of said transportation roller to a driving amount of said driving means.

31. (New) A printing apparatus as claimed in claim 28, further comprising control means controlling to store the driving amount of said driving means to said storage means as information of the transported distance after said first detecting means detects the print medium passing through a predetermined position until said second detecting means detects the print medium passing through a nip portion between said transportation roller and said pinch roller.

32. (New) A printing apparatus comprising:

a transportation roller to be driven by driving means through a gear train;

a pinch roller which sandwiches a print medium between said pinch roller and said transportation roller in a cooperative manner;

printing means for performing printing onto the print medium; and

control means for controlling said transportation roller to repeat a drive and a stop by turns, and for further controlling said printing means to perform printing while the transportation roller is in a stop condition,

wherein said control means controls said driving means such that, immediately after an end of the print medium has passed through a nip portion between said transportation roller and said pinch roller, said transportation roller is driven by an

excessive driving amount beyond a driving amount of said driving means corresponding to a backlash of said gear train, thereby performing printing of a position corresponding to a transported amount of the print medium.

33. (New) A printing apparatus as claimed in claim 32, wherein said controlling means controls printing by said printing means at a position continuous to a prior image printed before an end of the print medium passes through a nip portion, after the end of the print medium has passed through a nip portion between said transportation roller and said pinch roller.

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34. (New) A printing apparatus as claimed in claim 32, further comprising storage means for storing information relating to a transported distance after the end of the print medium passes through a predetermined position until it passes through a nip portion between said transportation roller and said pinch roller, said controlling means controlling said driving means based on the information.

35. (New) A printing apparatus as claimed in any one of claims 32 to 34, wherein said printing means has a plurality of ejection ports for ejecting ink, and said controlling means controls to eject ink from said ejection ports selected for printing on a position corresponding to a transported amount of the print medium after an end of the print medium passes through the nip position between said transportation roller and said pinch roller.